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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,569	01/14/2000	Stehpen S. Oh	TI-23373	8551

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EXAMINER

SMITS, TALIVALDIS IVARS

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 01/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No. <b>09/483,569</b>	Applicant(s) <b>Stephen S. Oh et al.</b>
Examiner <b>Talivaldis Ivars Smits</b>	Art Unit <b>2654</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED Dec 16, 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid the abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**THE PERIOD FOR REPLY [check only a) or b)]**

a)  The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.

b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.  A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.  The proposed amendment(s) will not be entered because:

- (a)  they raise new issues that would require further consideration and/or search (see NOTE below);
- (b)  they raise the issue of new matter (see NOTE below);
- (c)  they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d)  they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3.  Applicant's reply has overcome the following rejection(s):  
\_\_\_\_\_  
\_\_\_\_\_

4.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.  The a)  affidavit, b)  exhibit, or c)  request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
reasons given in the attachment  
\_\_\_\_\_

6.  The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.  For purposes of Appeal, the proposed amendment(s) a)  will not be entered or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

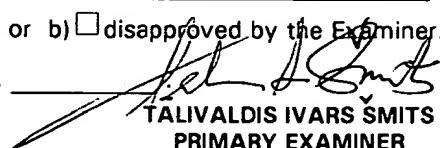
Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-3 and 9-11

Claim(s) withdrawn from consideration: \_\_\_\_\_

8.  The proposed drawing correction filed on \_\_\_\_\_ is a)  approved or b)  disapproved by the Examiner.

9.  Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 

10.  Other: see attached Form PTO-892

**TALIVALDIS IVARS SMITS**  
**PRIMARY EXAMINER**  
**ART UNIT 2654**

**Attachment to Advisory Action:**

1. Applicant argues that Bloebaum's formula cited in the Amendment After Final (first paragraph of page 3) "is not smoothing the power estimate" over time when there is no speech to calculate a noise power estimate "as claimed" in claims 1 and 9. The examiner begs to differ. The noise power spectral vector  $N$  is therein updated by smoothing from the  $(i-1)^{th}$  frame's noise power estimate to the  $i^{th}$  frame, these frames being adjacent in time. So, this formula teaches smoothing "over time". Bloebaum's additional smoothing "in the frequency domain" (AAF, p. 3) is an extraneous issue, as the examiner noted in the Final Office Action (p. 3, paragraph 6).
  
2. As for "adding the sampled speech signal to a portion of the speech signal of the previous frame" (AAF, p. 3), this "unwindowing" was discussed in paragraph 7 of the Action (not paragraph 5, as AAF states on top of p. 4, for paragraph 5 discusses the "complex symmetry" of a DFT, which allows one to use only half of the transformed windowed signals). As per "references to support this assertion" (AAF, p. 4), U.S. Patent 5,012,519 by Adlersberg *et al.* teaches (in connection with their noise reduction processing of FFT-processed speech data) examiner's mentioned advantages of Hanning windowing the time samples of a frame and FFT, intermediate processing thereof, IFFT, and 50% overlap-adding of previous frame sample data (also being IFFT of their processed FFT data; see particularly column 4, lines 59-65 and column 5, lines 1-3).
  
3. Thus, applicant having cancelled claims 6, 14, and 17-22 in the AAF, claims 1-3 and 9-11 stay rejected for reasons previously given.